Improving COLLEGE AND UNIVERSITY *Teaching*

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Improving College and University Teaching

Featuring Articles on Teaching Written by Teachers

On Greatness in Teachers

Scholarship and skill are requisites of good teaching, but neither of them, nor both together, will insure it. Fine scholars in many fields are authorities in their specialties but not good teachers; even professors of educational psychology may know well the psychology of teaching and learning and yet not practice it in their teaching.

Is not the power of a great teacher in the man himself? Socrates was disciplined and wise, he was skilled as a teacher, but through his wisdom and through his teaching gleams the greatness of Socrates the man, reaching its full revelation in the majesty in which he faced death.

Aside from those who are born great or have greatness thrust upon them, how shall a man, especially a teacher, strive to achieve it?

Perhaps the measure of greatness in a man is the extent to which, in a perspective of past, present, and future, he sees himself, his fellow men, and the universe as an interrelated unity.

The first concern is the man himself. Every human being is in some degree a unique entity, able (perhaps obligated) to make some contribution that no other human being can make. Every man has his chance, between birth and death, to make something of the time and talents entrusted to him. Self-realization is therefore paramount. "Only he who lives a life of his own can influence the lives of other men." Only the man who lights his own candle can light the paths of others.

In the need for enlightenment and the need to be a light to others reside man's desire and capacity for education.

Self-realization for the teacher is, of course, no kind of self-absorption or introversion. "The highest development of self is in the adjustment of self to other selves." A teacher who devotes himself sincerely to his own self-realization and his students' self-realization undoubtedly is on the road to becoming a great teacher.

He sees both himeslf and his students as unique personalities having some kind of important part to play in time, perhaps eternity. He takes himself seriously, and incidentally he must do this if his students are to take him seriously. He takes his students seriously, and thereby is able to reach and serve them vitally. Students work at their highest level under teachers who believe in them, who show that they discern in them their latent capacities, and who challenge them to achieve at the level of their abilities and opportunities.

The college or university professor needs to be a master in his subject field, a master in his teaching skill. If, in addition, he sees life in its fullness, and himself and his students in a perspective of history and destiny, his subject will have increased meaning, seen in a great scheme, and his students' learning will have increased zeal, because they are inspired and challenged.

"AE" once said of a famous scientist: "He is not really intelligent, for his mind embraces little outside his profession. *A candle does not shine light only in one direction.*" His son, reflecting on this, regarded it as a revealing sentence, because it made him see that his father through his life had been preoccupied, not with worldly success but with the completion of his own character:

> It was the kind of pursuit of self-perfection which mystics through the ages have been intent upon, and in Father's case it produced a kind of warm serenity, a saintliness of character so moving and so lovable that when he was dying, as a friend wrote, "even the surgeon, whose skill must defend itself against sentimentality, turned away for a moment in tears."[1]

Rasey, quoting Lao-tzu, implies that the great teacher will be forgotten; his students will believe "we did this ourselves."[2] To live impersonally, unidentified, in those one has influenced probably is a goal good enough. Yet a teacher related to his students through mutual self-realization earnestly sought will surely be remembered for his own sake. Students will feel fortunate to have found such a teacher.

1 Diarmuid Russell, "AE" [*George William Russell*], Atlantic Monthly, vol. 171, no. 2, February 1943. Pages 51-57.
2 Rasey, Marie I., *This Is Teaching*. New York: Harper & Brothers. 1950. Page 218.

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PARAGRAPHS ON TEACHING

For a faculty meeeting at Briarcliff Junior College last September, Dr. Tead prepared a set of paragraphs on teaching which are in part presented here and will be continued in the August issue. Now Editor, Social and Economic Books, for Harpers, Dr. Tead formerly was chairman of the Board of Higher Education, New York City.

By Ordway Tead

▶ The teacher is, in one sense, in the world but not of the world because the cultivation of the *rational,* the clarifying of the *valuable,* the enhancing of a *spiritual* view of life—these are his unpopular domain. He is set apart for these. He does not accept the sensate standards which the world accepts. He strengthens humane insights. And he lives by humanistic standards of the cultivated mind and the enriched spirit.

▶ The teacher as a culture-bearer has the duty of knowing the kinds of influence which make and shape and *are* the culture content of his generation. Such influences are contemporary in fact and, in spite of their historical and retrospective origins, they have always to be revalued if there is to be current acceptance.

▶ We should strive to help students to level up their capacity to *value*—to find what is valuable and why. This is only done if in the total environment of the student which the college helps to create—body, mind, and spirit—his own recognized and deeply felt needs are being satisfied through our effort to supply for him learning material which he realizes is by way of improving his total effective relation to his own living.

▶ Teachers are custodians and trustees for the growth of selves, of personalities. But there has to be *spiritual autonomy* preserved for the selves entrusted to us as teachers no less than to us as the trustees.

▶ Teachers are like gardeners, solicitous to provide the conditions under which *growth* can occur. But in the human being the growth sought only occurs as the student is helped by us to release and thus to realize the inner resources of *his own* intrinsic selfhood.

▶ Teachers, like gardeners, have to realize that the garden of growing young persons has to be prepared, planted and cultivated, all over again, every year. Each new generation of students starts from *its own* base of knowledge and desire —not from that of the teacher.

▶ Teachers can do little to help students solve problems of any kind u less and until the student recognizes that he *has* problems and begins to articulate what they are. As he identifies these and comes to find satisfaction in the solutions he reaches, he is discovering the secret of what motivates real learning as well as what is for him real learning.

▶ Teachers must realize that each student is different. The sense of *need* and *desire* for growth, the speed of growth, the directions of growth, the outcomes of growth—these are all *different* for every student.

▶ Teachers will add vitality to their teaching if the student senses that they are each year thinking through afresh some novel aspect of their subject and course thesis. The manifest example of the teacher thinking to some satisfying purpose can be a stimulating and contagious experience for the student.

▶ The good teacher does not *condescend* to meet the student upon the student's grounds and terms; rather he strives sensitively and sympathetically to penetrate closely enough within the student's mind to meet and minister to his often unrealized but essential and natural needs and desires.

▶ Some students think their thoughts largely through the promptings of their feelings. Others think their feelings into their thinking processes and outcomes. *Good thinking* is that which is at once clearly thought and deeply felt throughout the reflective process in its total relatedness to some aspect or problem of actual living.

▶ The teacher has a "captive" audience. That fact only increases the obligation upon him truly to captivate his students by his total effective appeal in which a discreet showmanship has its justifiable value.

SHOULD COURSE OFFERINGS BE PRUNED?

Has the season for pruning courses arrived? The David Jacks Professor of Higher Education at Stanford University analyzes this question and reaches another.

By W. H. COWLEY

No comprehensive investigations of the course offerings of American colleges and universities seem ever to have been made. This article summarizes some of the few and limited studies that have been published and also discusses related topics and their implications.

A CONTRAST: 1869-1930

1869: Charles W. Eliot took office as president of Harvard and found all its course offerings printed on eight catalogue pages. Opposed to the Fixed and Limited Curriculum still in effect in all American Colleges, Eliot wrote the following as the second paragraph of his inaugural address:

> It were a bitter mockery to suggest that any subject whatever should be taught less than it now is in American colleges. The only conceivable aim of a college government in our day is to broaden, deepen, and invigorate American teaching in all branches of learning. It will be generations before the best of American institutions of education will get growth enough to bear pruning.[9]

1930: The Spanish philosopher, José Ortega y Gasset, delivered his powerful lecture at the University of Madrid entitled, *The Mission of the University,* published as a book by the same title in 1944. Therein he observed:

> The university today, outside Spain even more than within, is a tropical underbrush of subject matters . . . . There is no remedy but to rise up against this turgid overgrowth and use the principle of economy like a hatchet. First of all, a thorough pruning.[16]

The Published Studies

Other studies besides those summarized herewith have probably been published, but I know only of the following:

Oberlin, 1893: In a pamphlet entitled "The Decline and Revival of Public Interest in College Education," an Oberlin trustee named Merritt Starr reported the semester hours of instruction offered by 11 American colleges and universities:[18.2]

Harvard	25,128
Cornell	21,050
Michigan	20,473
Oberlin	11,065
Yale	8,588
Amherst	6,306
Vassar	5,418
Princeton	5,112
Williams	4,760
Dartmouth	4,616
M.I.T.	18,965

Starr did not report the number of courses offered in these institutions. He undertook his study to further the Elective Principle at Oberlin and also to show the general educational progress of his alma mater.[18.1] He declared Oberlin's rapidly expanding number of hours of instruction to be "magnificent."

Harvard, 1911: No one conducted a Harvard study at this time, but an inspection of its catalogue shows that the course offerings of the Faculty of Arts and Sciences alone took 73 pages to list. Eliot's campaign begun 31 years earlier had borne abundant fruit.

Harvard Courses in English, 1869-1924: A member of the Harvard faculty named Arthur Orlo Norton made a study of the expansion of Harvard courses in English during this 55-year period.[7] Six of the 15 dates he used show the trend: 1869, 6; 1875, 7; 1890, 21; 1899, 45; 1908, 50; 1924, 65.

Thirty-Five Methodist Colleges, 1932: Floyd W. Reeves and associates reported the course offerings of 35 colleges connected with the Methodist Episcopal Church.[17] Major finding: the larger the institution, the more kinds and hours of instruction made available to students.

Judd Study, 1933: In the chapter on Education in *Recent Social Trends,*[14] Charles H. Judd included the following table:

Courses Announced In The Catalogues of Ten Independent Colleges and the Liberal Arts Colleges of Ten Universities, 1900-1930

College	1900	1910	1920	1930
Independent Colleges:				
Amherst College	44	99	98	130
Carleton College	142	200	297	295
Central College	70	77	122	275
Colorado College	127	169	322	420
Grinnell College	67	225	271	296
Howard College	46	69	143	255
Knox College	86	103	154	229
Lafayette College	(a)	256	249	371
Oberlin College	195	257	279	369
Pomona College	101	185	323	267
Liberal Art Colleges of Universities:				
Harvard University	543	814	877	1,114
Princeton University	253	355	508	674
Stanford University	373	417	710	1,095
State University of Iowa	213	399	577	823
University of Alabama	46	104	158	437
University of Chicago	960	1,439	1,661	1,897
University of Colorado	222	322	471	719
University of Virginia	75	115	205	315
University of Washington	134	363	561	980
University of Wisconsin	434	772	913	1,143

(a) Courses not listed.

North Central Association Study, 1940: Aaron J. Brumbaugh and William J. Haggerty investigated the curricular and instructional practices of 276 colleges in the North Central Association. Their report especially emphasized general education courses.[8]

Minnesota, 1943: Ruth Eckert in her book *Outcomes of General Education* included the following sentence:

> At the University of Minnesota . . . . some six hundred courses are open to freshmen and sophomores, over five hundred of which have been planned largely to suit the requirement of those who will progress to advanced work in particular fields.[8]

Columbia College, 1943: A committee of the faculty of Columbia College reported "about 330 courses." It went on to observe that this number did not include courses available to Columbia students "throughout the entire University."[4] The relatively small number of courses offered by the College itself may be related to the fact that it has long been committed to the Integration Principle and currently requires all students to take three integration courses in their freshman and sophomore years. More on this point later.

MacLean, 1947: In a 1947 address at the University of Minnesota Malcolm S. MacLean reported that in 1945 U.C.L.A. "taught 1,710 courses" and the University of Chicago 2,708. He did not say how many courses at either institution were available to undergraduates.[15]

Related Topics

The question of the number of courses offered by a college or university needs to be discussed in relation to several other considerations including the following:

1. Limitations upon the Number of Courses Taken Simultaneously:

The prodigious and continuing expansion of course offerings during the past eight decades has been sharply berated by innumerable critics, but some faculties operate on the principle that these censors have overlooked the essential point, namely, the number of courses a student may carry simultaneously. "What difference does it make," these faculties seem to ask, "if 100 or 1,000 courses be available since the student can carry only a limited number during any term and, indeed, a limited number during his whole college course?"

Regardless of the validity of this point of view, a growing number of colleges and universities limit the course loads of students. For example, Hiram College has operated for about twenty years upon what it calls The Single Study Plan, perhaps the most thorough-going program of any American college for limiting the number of studies carried concurrently. Under it, students take only two courses at the same time: a "regular yearly course" and an intensive course completed in 7 weeks instead of 9 months. Thus Hiram students complete six courses each year: five intensive courses and one yearly course.[1,32]

The plan has a long history, Professor John Trowbridge of Harvard reporting in 1888 that "Some years ago a one-study college was established west of the Mississippi."[19] Trowbridge urged that other colleges adopt the plan, and William Rainey Harper attempted to inaugurate it at the University of Chicago upon its opening in October 1892. He believed that students would acquire the disciplinary training which he highly valued by concentrating on not more than two subjects each term. One of these would be what he called a Major, which he defined as a course meeting 10 to 12 hours a week, and the other a Minor, which he defined as a course requiring only 5 hours of classroom work weekly.[10] "It is granted," he wrote, "that the principal object of work, at all events in the first years of a college course, is its

disciplinary value"; and hence student programs should be so organized that discipline would be achieved:

> It is conceded by many instructors and students that the plan which prevails in many institutions of providing courses of instruction of one, two, and three hours a week, thus compelling the student to select six, seven and eight different subjects at one time is a mistake. Whatever may be said in favor of symmetrical growth, no plan can permanently commend itself which compels superficial work . . . . It has been my privilege during the past ten years to note the results of work in which the student was given an opportunity to concentrate his attention upon a single subject for eight and ten or twelve hours a week. I have seen results that I could not have believed possible had I not seen them for myself. In order to become deeply interested in the subject the student must concentrate his attention upon that subject. Concentration on a single subject is impossible if at the same time the student is held responsible for work in five or more additional subjects.[11]

In this statement Harper referred to his own practice at Chautauqua and elsewhere of meeting his introductory Hebrew classes twice daily at two-hour sessions, that is, for 20 hours during a five-day week. The plan worked brilliantly for him, but the faculty and students of the University of Chicago apparently chaffed under the less exacting 10 to 12 hour course plan which he inaugurated. Soon, therefore, it developed into the three-course plan which has been in operation at Chicago ever since.

About the same time Harvard began developing its four-course plan, the standard load being four courses each term during all four undergraduate years. Three decades later Princeton—in 1924 to be exact—adopted a variation of it which has evolved currently into the plan of requiring five courses of freshmen and sophomores, four of juniors, and three of seniors. Brown adopted a four-course plan in 1939 and Yale, the same year, a "permissive" four-course plan for upperclassmen with averages of 75% in the work of their freshman and sophomore years. Meanwhile Swarthmore adopted a four-course plan in 1934-35, and Dartmouth about the same time freed a small number of outstanding seniors from all course work. More recently Wesleyan has organized a similar program under the title of "Honors College," a plan of complete freedom "for superior students leading to Degree with Distinction."[12,1] Aydelotte in his 1944 book, *Breaking the Academic Lock Step,* has described many other plans which, especially during junior and senior years, relieve superior students of standard course requirements.[1]

Clearly the number of courses offered by an institution must be discussed *pari passu* with the number that students may carry during any one term. The two questions are facets of the same problem.

2. Class Size:

The problem also has an economic facet. Educationally, a case can probably be made for a wide range of offerings especially for upperclassmen and graduate students. Economically, however, the more courses given, the smaller must be the average size of classes and hence the higher the costs. Since the highest paid members of faculties usually teach the smaller classes, the number of courses scheduled boils down finally to a question of economics, that is, to how many an institution can *afford* to offer.

Budgetarily, large classes are obviously desirable, and some hold that they have as much educational worth as small classes. Scores of studies have been made to prove the latter point, but many faculty members and many students remain unconvinced.

The problem of large classes first came in for discussion on the level of higher education in 1903 when the Committee on Improving College Instruction in Harvard College (known as the Briggs Committee) made its report and pointed to the increase in the number of classes of 100 and more students from five in 1882-83 to 39 in 1901-02, 14 of these enrolling more than 200 students. Commenting on these statistics, the Briggs Committee observed:

> Some students condemned large lecture courses altogether; more declared that they are good for some men and not for others; many more said that some of them are good and others are not; but the great majority of those who answered [the committee's questionnaire] thought them valuable, because they opened large subjects of thought, or because they introduced many students to "big men" in the Faculty, or even because they brought a large body of students together . . . .
> The larger these courses grow, the more evident it is that the object of the lectures in them is not so much to impart concrete information as to stimulate thought and interest in the subject and since the stimulus depends in part on the attitude in which the audience stands toward the lecturer, it is important that these courses should be conducted by men who have already achieved a reputation. Indeed, the replies of the students make it clear that to be effective the lecture course must be conducted by the best lecturers in the University.[2]

The question of class size came to the fore again in 1921 when President Lotus D. Coffman of the University of Minnesota remarked in an address at the University of Michigan: "Frankly I can see

no reason why we should not deliberately plan many large classes."[5] Coffman's approval of large classes stimulated extensive studies at Michigan, Minnesota, and other Middle Western universities of their relative efficiency compared with small classes. The most comprehensive of these appeared in 1928: *Class Size at the College Level* by Professor Earl Hudelson of the University of Minnesota. It demonstrated that the size of a class has no measurable effect upon the knowledge students are able to reproduce on examination papers. Hudelson also discovered, however, that of 150 faculty members queried, 81 preferred medium sized classes and 23 small classes and that 116 of 122 students interviewed preferred small classes.[12]

Careful reading of the literature on the relationship of class size to educational efficiency leads one to the conclusion that the problem has many elements which cannot easily be measured. These include the effect of teaching on student motivation, attitudes, and skills and the optimal use of the differing capacities of instructors. On the latter point, the Briggs Committee proposed that only "the best lecturers in the University" should conduct lecture courses. An obviously sound proposal; but if all classes are to be large as some seem to imply they should be, what happens to those not skillful as lecturers?

Everyone knows that many very able teachers lecture pithlessly and some even piteously, and to require these men and women to struggle with large classes would be like requiring first-rate pitchers to perform notably at bat too. On the other hand, many professors who teach only advanced courses have the ability to lecture capably if not brilliantly to large groups of students, but so few students are interested in their subjects that perforce they have small classes. Otherwise expressed, no matter how able and versatile those who teach them, advanced courses seldom attract large numbers.

In short, the number of small classes depends upon the amount of advanced instruction offered. This fact—and clearly it is a fact—means that the problems of class size and of the number of courses offered should be assessed by instructional categories.

3. Course Offerings and the Two Instructional Categories:

College and university courses fall into two large groups: general education courses and specialized education courses. Inevitably the average size of the former considerably exceeds that of the latter. Inevitably, also, the latter cost more to teach. Further, universities emphasizing graduate work offer more specialized courses than institutions devoted primarily to undergraduate teaching. Most of the studies reported above do not, however, distinguish between these two types of instruction.This limits their usefulness, and institutions investigating their offerings obviously need to make more refined studies.

The making of such studies will force attention upon an institution's general education program. For example, Columbia College offers fewer courses than most undergraduate colleges probably because of its commitment to the point of view that general education shall focus in its three integration courses—one each in the humanities, science, and social science. MacLean's figure of 2,708 courses taught at the University of Chicago in 1946 does not distinguish between general and specialized courses; but since Chicago also operates on the Integration Principle, one would guess that it too makes available fewer general education courses than institutions which do not follow that principle. A profitable study could be made, it would appear, of the course offerings of a sampling of colleges and universities in the light of the types of general education plans they follow.

In other words, possibly the best way to curb the growth of courses in the general education category may be to adopt the Integration Principle.

As for curbing the growth of specialized courses, President James B. Conant, referring during the Harvard Tercentennial to President Eliot's 1869 observation against the desirability of pruning, observed:

> It is now sixty-seven years since this statement was made and three generations have passed; in my opinion the time for pruning has arrived. The Faculties should endeavor to reduce the number of courses given and in many cases to condense the material now presented. The tremendous subdivision of the fields of learning which has occurred during the past thirty-five years will certainly shock the academic historians a century from now. And the increase in the number of special courses of instruction has by no means been solely in the Faculty of Arts and Sciences; the professional schools have shown the same tendency. How to stop this movement of expansion, how to eliminate and condense, how to arrive at an agreement on certain aspects of certain subjects which should be thoroughly mastered—to my mind these are the great educational questions of the future. They are involved in every phase of a university education and yet they receive but little attention today. We must soon grapple with these problems for it will require at least a generation to solve them.[6, 1]

Mr. Conant made this statement 18 years ago, but in most institutions during the intervening years the expansion has continued unabated. The reason for this in the category of specialized education is clear and probably defensible. Although Mr. Conant deplored proliferation in the address just quoted, in another delivered later during the Harvard tercentennial ceremonies he enthusiastically applauded the specialization which produces it:

. . . . it is because of specialization that knowledge advances, and not in spite of it; . . . . cross-fertilization of ideas is possible only when new ideas arise through the intense cultivation of special fields.[9,2]

American higher education devotes its energies both to general and specialized education. Both types have been expanding and fragmenting to the point where many raise their voices in alarm. The situation demands that all relevant facts be gathered, but even more urgently it demands guiding conceptions. Those bent upon wielding the pruning shears need first, in brief, to answer Shakespeare's question, "Hast any philosophy in thee, shepherd?"

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The Man Mark Hopkins

"The man Mark Hopkins as he moved slowly forward through the elm-shaded street seemed to incarnate in his stately massive form and wide domed brow all the finest traditions of the old school, preserving its reverence for God and man, its high sense of duty and justice, while he cast out all that was narrow and petty and looked out to the new vistas of knowledge opening before him with wide vision and deep understanding; holding fast to all that was best in the old and opening the way to that vast conception of the universe that was just beginning to dawn upon the mind of man."—J. H. Denison, Mark Hopkins: A Biography. Charles Scribner's Sons, 1935. Pages 312-313.

"FACULTY DAY"

When a college faculty spends a full day discussing teaching and the role of teachers, it can get off to a good start for a good year. The head of the Department of Psychology and chairman of the Curriculum Council, Oregon State College, outlines one such day and suggested improvement.

By J. W. SHERBURNE

A scheduled all-faculty meeting to clarify purposes and heighten morale is a practice in many colleges and universities.[1] Sometimes the meeting is expanded into an all-day program. For a long period Oregon State College has held an all-staff meeting at the beginning of each academic year. In the fall of 1953 a "Faculty Day" was devoted to the theme "My Role as a College Teacher."

A challenging address by the president on "Realigning the Sights" was followed by brief question-raising discussions by panel members. An engineering professor discussed attitudes. What attitudes are we fostering in our classrooms, he asked, such as intellectual integrity, sound professional ethics, and personal honesty? An agriculture professor discussed the college teacher as counselor of students. A chemistry professor raised questions as to the role of the college teacher in public relations. A home economics professor discussed problems of teaching technique and the individualizing of instruction. The chairman of the program outlined the procedure that would be followed in continuing the day's discussions.

In the afternoon the faculty met in five groups which cut across departmental and school lines. Each group had two leaders in addition to one of the members of the morning panel. The discussion groups varied in size from 50 to 85 faculty members. Three of the groups divided into smaller groups for the first forty-five minutes and then assembled as a group of the whole.

At midafternoon the faculty reassembled for brief summaries of the questions and discussions of the group meetings. Finally, a forestry professor pointed up the obligations and opportunities of the faculty of a modern university, particularly of a land-grant institution like Oregon State College. Taking his theme from the Shakespearean line "On this green land, answer your summons", he said in conclusion:

> "If, in addition to teaching well, we make the student's personal interest our deep concern, then we can magnificently enoble the mind of the individual, we can vastly enlarge the horizon of the citizen, and we can richly endow the career of the technician. These things being well done, we will have achieved a most important goal, we will have built a college which will lead us all to a better life on this green land."[2]

Consensus of the four to five hundred faculty members who participated was that the variety in the day's program was good, timing was excellent, and choice of personnel very satisfactory. The college administration received much praise for its initiative in providing the "Faculty Day" program.

Some negative comments were: topics were too general to be of much practical help in classroom and laboratory; time is too valuable to spend it in "hashing old problems" to which there is no solution anyway; if in-service training is needed intradepartmental meetings would be more profitable than interdepartmental.

It was hoped that school and departmental faculties would continue discussion of teaching and related problems in meetings throughout the year. The planning committee agreed on the following suggestions for better future "Faculty Day" programs:

1 Give the faculty an opportunity to recommend topics (problems) that they would like to have discussed.
2 Distribute some duplicated material on topics for Faculty Day to the faculty several days in advance of the first meeting.
3 The general assembly of the faculty in the morning and at the conclusion of Faculty Day should be continued.
4 Substitute for the time given to the morning panel group discussion meetings in order to give opportunity for faculty members to attend discussion on one topic in the morning and another in the afternoon.
5 Groups should be organized according to interests in more specific problems, such as: evaluation of student learning; use of teaching aids; methods, their advantages and limitations; advising students; public relations; personal and professional attitudes.
6 Divide the larger discussion groups into groups of 15 or 20 members. These smaller groups should assemble later for reports of discussions and recommendations conducted on the general problem.
7 Distribute duplicated reports of recommendations from the major discussion groups to all faculty members to be discussed by faculties of the various schools.
8 In-service training in the various schools carried on throughout the year should be encouraged.

1 Kelley, William Frederick, "Twenty Studies of In-Service Education of College Faculties and Procedures Most Recommended," *Educational Administration and Supervision*, Vol. 36, No. 6, October 1950, pp. 351-358.

2 W. F. McCulloch, "On This Green Land", *College and University*, Vol. 29, No. 2, January 1954, pp. 294-298.

WHO IS A GOOD LIBRARY SCHOOL TEACHER?

Good teachers in library schools should produce: (1) good librarians, and (2) allies of the faculty. An associate professor in the University of Illinois Library School recognizes that teachers in professional fields can improve their teaching.

By THELMA EATON

On any college campus, informal evaluation of the teaching faculty is common sport. The freshman bitterly denounces the graduate students to whom he is subjected; the graduate student complains about his professors. If the students in professional schools are somewhat louder in their complaints it may be because some of the teachers who are drawn from the ranks of the profession itself are inadequately prepared for teaching. This paper is concerned with the teacher in one professional area—librarianship. Analogous considerations doubtless apply in other professional fields.

What the students in the earliest library schools, established something more than fifty years ago, thought of their teachers we have no way of knowing since complaints about teaching are usually verbal and are not preserved for posterity. However, it is possible that the students of those earliest schools criticized the teaching in much the way that the students of today criticize it. It can be said that for the past twenty-five years students in library schools have complained more or less continuously about the poor quality of classroom instruction. It is even possible that complaints have been increasing in recent years, not decreasing. It has been suggested that this may be the result of the appointment to teaching positions of people who have been successful library administrators but were inadequately prepared for teaching. It is difficult to say why such people accept teaching positions, but there may be a prestige value involved, or a belief that teaching is less arduous than library work. It is also difficult to understand why such people are selected for teaching positions, but it may be because they are recognized names or because the officials responsible for the selection of teachers do not understand fully that not all people have teaching ability. It is quite possible that the complaints have increased in recent years because library schools have too often selected new teachers who lacked knowledge of library science and ability to teach to replace the retiring teachers who had sound knowledge of library science, even if they sometimes lacked pedagogical skill.

If it is accepted that good teaching is essential in the program of training for a profession, the library schools must attempt to find adequately qualified teachers. The basic minimum requirements for library school teaching are the same as the requirements for teaching any subject, and that is knowledge of subject matter and ability to present material in an effective manner. In addition the library school teacher must have had professional experience. Desirable personality traits are important but they need little discussion since they are usually present if the basic requirements are met.

A fairly recent article[1] which emphasized the importance of academic training suggested that all college teachers might well be required to have the Ph.D. degree. This level of training is equally desirable for the teacher in the professional school and would seem to be essential for those schools which are wholly graduate. It is true that, at the present time, there are not enough people with Ph.D. degrees to fill all teaching positions which now exist. To meet present needs it may be necessary to select as teachers for the undergraduate courses and the beginning courses in the present master's program some of the individuals who completed the old master's degree which represented two years of work beyond the baccalaureate degree. Anyone who wishes to remain in the teaching program should expect to carry his own education to the highest point possible. Any library school which awards a doctor's degree will consider it necessary to recruit its teachers for the upper level courses from that small group of people who have received the Ph.D. in library science.

But the completion of college courses and the possession of degrees are not, in themselves, indications of adequate preparation for the teacher in the professional school. Anyone who proposes to instruct students in the practical aspects of librarianship should have been a practicing librarian. The teacher whose experience, over a period of years, has included many types of library work is able to make his discussion of both techniques and theories come alive in the classroom. The teacher who thoroughly enjoyed his work as a librarian

1 Thomas C. Donnelly, "Who is a good professor?" *Journal of Higher Education*, vol. XXII, June 1951, pp. 301-307, 343.

can take to his classes a kind of enthusiasm for the profession that the theorist in an ivory tower is unable to express. Students are quick to discover the gaps in a teacher's knowledge that are the result of inexperience. Certain things which seem meaningless in the classroom will come alive in a work situation but if teachers present ideas which are meaningless to them they will remain unintelligible to students. The English teacher who attempts to teach an appreciation of poetry does not have to be a poet himself, but the library school teacher needs to have been a practicing librarian.

Thus far two points have been stressed, the academic preparation and the practical experience as a librarian, but it does not follow that the person who meets these two qualifications will be a good teacher. There must be present the ability to teach and the willingness to work at the business of teaching. The good teacher must know enough about teaching techniques to organize and present material in a satisfactory manner. It is true that there have been teachers whose knowledge was so great that anything they said, planned or unplanned, was valuable, but such teachers are rare and they are not our concern.

Today's teacher needs to know how to plan a curriculum or a single course, how to present material in class in an interesting manner, how to use various techniques in teaching, when to lecture, when to have student reports, when to use special assignments that require effort on the part of students, and how much work of a given sort can actually benefit the student. Serious students want their work planned and guided; they are bored and dissatisfied with the teachers who seldom prepare work for themselves but depend on the services of visiting lecturers, movies, or reports by student committees. A student who was asked concerning such a teacher replied, "I don't know how good a teacher he is; he doesn't teach."

Students are not primarily concerned with how much their teachers have written; they are more concerned with what goes on in the classroom. Students in a professional school have every reason to hope that their hours in the classroom will give them practical help in the job they have chosen. They have a right to be bitter when they find themselves in dull, uninteresting classes which give them neither underlying principles nor practical techniques. The graduate student has a right to expect that he will be stimulated to new activity in his chosen field. Students have a right to expect that the teachers who address them will be competent speakers. Flat monotonous voices and poor appearance before a class have no more place in the classroom of the graduate professional school than in the secondary school or the undergraduate college. Teachers who address an audience in a monotone should be asked to improve.

Since the teacher's main responsibility is to the student in the classroom it has often been remarked that it is unfortunate that the university is more likely to promote on the basis of publication than on the basis of teaching. It must be recognized that published articles are more tangible than good teaching. Moreover, it must be accepted that recognition of service to the university in which the library school is located will be based on publication rather than on superior teaching. In the end this is not too unsatisfactory since the good teacher should be able to express himself in writing and should have something to say that the members of the profession would like to read. It is to be hoped that his teaching load will be so adjusted that he will have time for his own research and writing.

Since there seems to have been little effort to improve library school teaching one must conclude that teaching ability has not seemed too important to library schools. Perhaps the administrators have been unaware of the quality of teaching in their respective schools or have been too busy with other things to consider the teaching. It is the library school students who have been conscious of indifferent quality of some of the instruction but they have not been in a position to comment publicly about this. However, the heads of the schools would do well to find out what the students think and to try to select teachers who meet the requirements suggested by the serious students.

In conclusion let us summarize the necessary qualifications of the teacher in this professional area. The teacher chosen by the library school must know library science in general and some special part in detail; he must have had enough practical experience in libraries to understand fully the various aspects of librarianship; he must know enough of educational technique to plan his work carefully and present it effectively; he must be willing to do his own class work instead of delegating it to visitors and student helpers; he must have a speaking voice that will not affect the audience adversely; he must be able to carry on research and write. Such teachers do exist; it should be the business of the library school to find them.

ELIMINATING INHIBITIONS IN COLLEGE READING

Books, said Bacon, are to be tasted, swallowed, or chewed and digested, according to their character and content. The Assistant Director of Research at Western Washington College tells how, when rapid reading is in order, it can be learned.

By WILLIAM C. BUDD

Anyone who has had occasion to observe closely the reading habits of college students must certainly have noted certain deficiencies. Probably the most common weakness is the inability to vary the rate of reading to suit either the material or the purpose for which it is being read. Many students tend to stick doggedly to a given rate for every type of reading whether the material be a textbook in economics or the *Reader's Digest*. This rate averages about 300 to 350 words per minute.

Most students are familiar with the usual admonition that they must vary their reading rate to suit the type of material. Usually this advice has little, if any, effect on actual practice. Students' inhibitions against such behavior are deep seated.

One of the things that must be done with such students is to prove to them that certain types of reading materials are not worth the time they spend plodding through at such a slow rate of reading. It must be demonstrated to their satisfaction that in reading such types of literature they can double or triple their speed with no loss in comprehension.

The approved method of increasing reading speed is to put the student in easy informational material and exert pressure to get him to read faster and faster. With a persistent instructor, a not too resistant student, and ten to twelve weeks of practice, it is possible by such a method to increase the rate of reading in such materials to approximately 450 to 500 words per minute. This, anyone would agree, represents considerable improvement.

There is, however, another method which can be used to provide the same if not better results in much less time. It is applicable to any English class or remedial reading group. The procedure is somewhat as follows: Use a manual containing a number of articles of general informational character. One of the best available is Brown's *Efficient Reading*.[1] After the class has finished reading an article at the conventional rate the instructor asks, "How would you like to read such an article at 1,000 words per minute?" The usual reaction is one of surprise and disbelief with an implication that the instructor must certainly be jesting. At this point it is necessary to convince the students that such a thing is possible even for them. A demonstration is then in order.

Take a very simple article from the reading manual. A good example in Brown would be one of the excerpts from Overstreet's book, *The Mature Mind*.[2] Go over the article with them showing how each paragraph is constructed. Surprisingly, most of them will be unfamiliar with this type of analysis. Show them that by finding the topic sentence in these articles (which is almost always the first sentence) and glancing rapidly at the rest of the paragraph to pick up the details, they can extract the meaning from that paragraph in one-third the time they formerly devoted to it. After they understand the process tell them they will be timed while they try it on the next article.

It has been the author's experience that nearly everyone in a class of college students will be able to reach a speed of 1,000 words or more per minute on such materials with little or no loss in comprehension. Comprehension is measured by the tests on each article at the back of the manual. This amazes the students and proves a very effective technique for releasing them from their inhibitions concerning rapid reading. It helps to eliminate this feeling that something is "missed" by rapid reading.

It hardly seems necessary to add that the purpose of this little stunt is not to make all students read all materials at 1,000 words per minute. The procedure does, however, have two distinct advantages. The first has already been mentioned. It proves to students that they too can read certain materials much more rapidly than they had ever dreamed possible with little or no loss in comprehension. In the second place, it is much easier to let them come down from a rate of 1,000 words per minute to a more moderate rate of say 600 words per minute than it is to boost them from 300 to 600 words per minute. It certainly takes much less time. The author has found that student reading rate can be boosted as much in several days using this method as was formerly accomplished in several weeks of intensive practice.

1 James I. Brown, *Efficient Reading*, New York: D. C. Heath and Company, 1952.

2 *Ibid.*, p. 17-25.

IMPROVING COLLEGE INSTRUCTION*

The Director of Research and Service at Florida State University acts as literary host to a dozen college and university teachers and others interested in improving college teaching, including Erskine, Klapper, and Phelps. He cites especially Cowley and Tead, contributors to this issue.

By W. Hugh Stickler

In an article in *Mathematics Magazine*, Joseph Seidlin, dean of the graduate school at Alfred University, made this arresting statement:

> Many of our "teachers" are not really teachers. They are mathematicians, physicists, historians, linguists, etc.—not teachers. Many of them are men (and women) of great stature; major contributors to science, technology, and the arts; but they are not teachers. On some scales of worth to humanity they outweigh the teachers; but they are not teachers. They might even be indispensable to institutions of higher learning; but they are not teachers. To them, students are means; to teachers, students are the end products,—all else is a means. Hence there is but one interpretation of high standard in teaching; standards are highest where the maximum number of students —slow learners and fast learners alike—develop to their maximal capacity.[1]

Several years ago John Erskine wrote, "Good teachers are so rare that the rumor of one on campus spreads with the speed of gossip."

There can be no doubt about the fact that the key to any program of effective instruction lies in the person who does the teaching. We may have a philosophy as clear as crystal; a course of study adequately planned to the last detail; a generous, sympathetic, and efficient administration; physical equipment adequate to every need, and still fall short of a satisfactory program of instruction unless there is in the classroom itself a well-trained professional person who is skillful in the art of teaching.

Fortunately, there is a widespread demand in America today for better college teaching. This has not always been so. Regarding earlier conditions, the observations of Fred J. Kelly are probably typical. While visiting twelve leading colleges in the middle twenties Dr. Kelly reports that he "talked with presidents, deans, and faculty members about methods of college teaching. At that time there was little interest in teaching as such. Indeed there was often a tinge of resentment against even raising the question of methods of college teaching. Whose business was it anyway how any college teacher taught?"[2]

Quality in College Teaching

Surely one does not have to make a case for quality in college teaching. Its importance is self-evident. It is indeed so very important that one would expect graduate schools to have made elaborate and thoroughgoing provisions for the preparation of college teachers. Not so. The *Report of the President's Commission on Higher Education* points out that:

> The most conspicuous weakness of the current graduate programs is the failure to provide potential faculty members with basic skills and the art necessary to impart knowledge to others. College teaching is the only major profession for which there does not exist a well-defined program of preparation directed toward developing the skills which it is essential for the practitioner to possess.[3]

That is a very serious indictment of our profession. College and university teachers simply have not been prepared to teach. And this condition exists in spite of the fact, as E. V. Hollis points out, that more than 65 per cent of all Ph.D. degree holders are employed in institutions of higher education, the great majority of them as teachers.

To date the graduate schools have offered us little help in preparing for the technical work of our profession. For all practical purposes there is no essential distinction between the graduate programs of those preparing for pure research and those preparing for college teaching. The fact is that research, the objective of the minority, has been permitted to dictate the program over preparation for teaching, the objective of the majority. Regardless of the end goals of graduate students they have been required to follow almost identical procedures.

Most of us have learned what we know about college teaching from observation, experience, and experimentation. These are effective methods but expensive and wasteful ones. Generations of college students have been badly taught as we made our mistakes and, of course, many faculty members never have caught on to acceptable teaching procedures through this trial and error approach.

Such have been the traditional conditions of

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* An address at opening session of the Faculty Conference at Southern University, Baton Rouge, Louisiana, on Wednesday, September 9, 1953.

1 Joseph Seidlin, "High Standards: Sacred and Profane," *Mathematics Magazine*, March-April, 1950, pp. 191-192.

2 Fred J. Kelly, "Recent Publications on College Teaching: A Brief Review," *Higher Education*, VII (June 1, 1951), p. 222.

3 *Report of the President's Commission on Higher Education*, Vol. IV, p. 16.

teaching in American colleges and universities. Yet in recent years, particularly since the close of World War II, there has been a ground swell of interest in greater effectiveness in college teaching. A number of universities—Michigan State, Oregon State, Chicago, Minnesota, and Syracuse among others—have introduced more realistic and forward-looking graduate programs aimed at better preparation of college teachers. Many institutions, notably Stephens College and the University of Missouri, have on-going in-service programs for improving instruction; significant conferences, regional and national, have been held; the American Council on Education has launched a major Committee on College Teaching; special studies and reports have been made; and numerous pamphlets and books have been produced on the subject of better teaching at the level of higher education.

There are, of course, those who maintain that specialized training for college teaching is unnecessary, that it is, in fact, a lot of piffle. These people maintain that research is the only legitimate objective of the graduate school and that learning the ways of research constitutes adequate education for the profession of college teaching. Those who support this point of view assume that the very process of graduate study is in itself the best possible training for the prospective teacher. Pursued to its logical end this assumption reflects a firm belief in faculty psychology and the principle of "general discipline." These people maintain that it does not matter so much WHAT you study so long as the study itself provides ample discipline for the mind. They say in effect, "The method of the learner is the method of the teacher. The good learner, therefore, must be qualified to be a good teacher." Experience has demonstrated repeatedly that this is a false assumption.

Attributes of a Good Teacher

If we reject the proposition that graduate training in research and subject matter alone is adequate preparation for successful teaching, it behooves us to indicate those attributes we seek in a college teacher. Just what are the characteristics of the effective classroom practitioner? At the risk of belaboring the obvious I want to maintain that good college teachers understand and like college people; that their teaching is grounded in sound scholarship; that they use their personalities effectively in the teaching process; that they know why they are teaching what they are teaching; that they plan effectively the content and learning experiences which will achieve their objectives; that their teaching is characterized by relevance; that they employ the methods they use most advantageously; that they adapt instruction to the individual needs of the students; that they are concerned with appraising the outcomes of instruction; that they grade fairly and impartially; and finally that they are enthusiastic about their work.

► Let us start then with the first requirement: the good college teacher understands and likes college people. If this is not true the individual is simply in the wrong profession and the sooner he gets out of it the better it will be for all concerned. The successful teacher enjoys being with and working with young people. In order to teach them effectively he knows them well—as individuals. He understands post-adolescent motivation and the psychology of learning. He realizes that he is working with immature minds. He knows that as a teacher of undergraduates he is not working on the frontiers of knowledge. Rather he is working with people who are classified as students by virtue of the very fact that they do not know and because they need to know more than they now do.

► Earlier I expressed my belief that graduate education in research alone does not constitute adequate professional training for successful college teaching. I do not want this to be construed as meaning that I am not for sound scholarship in college teachers. I most certainly am. I believe scholarship, not only in the college teacher's specialty but also in its related areas, is an absolutely essential requirement in the equipment of any college teacher. A college teacher must know something. Inferior scholarship can never be condoned. Topnotch scholarship is a *sine qua non* in college teaching.

I do plead, however, for a reasonable interpretation of the term scholarship. I do not feel that scholarship is necessarily attained only through research. The terms are not mutually exclusive; neither are they synonymous. An individual may be both a scholar and a researcher, but this is not necessarily so. There are many fine scholars who are not researchers; likewise there are many researchers who are not scholars.

This may be confusing. Let me explain. I find myself quite in agreement with W. H. Cowley of Stanford University in believing that there is a fundamental difference between research and scholarship. I use his definition of the terms:

RESEARCH is the effort to discover new facts or to recover lost or forgotten facts: it is the empirical element

in the quest for understanding the nature of the universe and of man.

SCHOLARSHIP is the organization, criticism, and interpretation of facts and thoughts about facts; it is the rationalistic element in the pursuit of understanding.[4]

I am fully aware of the place and importance of research in university work. Regardless of the name attached to an institution a university cannot really be a university unless it does significant research. I would not for a moment mitigate the importance of research. I do not believe, however, that continued research is a necessary concomitant activity of a college teacher. I believe, in fact, that research too vigorously pursued may actually interfere with effective instruction. I am confident I have seen it happen. On the other hand scholarship, which is no less intellectual in its demands than is research, is an absolute requirement for effective teaching in the college classroom. Cowley reminds us that ". . . three processes and not just two must be identified and reckoned with: first, the discovery of knowledge—or research; second, the organization, criticism, and interpretation of knowledge—or scholarship; third, the communication of knowledge or teaching."[5] Then Cowley goes on to summarize the matter as follows:

To perceive these three processes clearly also leads to the awareness that research *per se* has no direct relationship to teaching and that scholarship must stand between them and join their hands. Before research data become teachable they must go through the intermediate stage of scholarship, the stage of arrangement, criticism, and explanation. This means that everyone who is to devote his major energies to college teaching should be trained in the skills of scholarship and that the primary emphasis in his graduate training should be, therefore, upon the organization, criticism, and interpretation of the facts turned up by research people. This will involve enough association with the research enterprise to understand both its insistent importance and its methodology, but it need not involve concentrated and continuous participation in research investigations. Instead, attention must be given to scholarship *per se* and also to the acquisition of skill in communicating the results of research and scholarship in able teaching. People can learn to teach, but such learning must rest upon the foundation of sound and continuous scholarship.[6]

Some people will not like Cowley's statement. But think it over. The practical implications of this analysis are inescapable. Every subject that merits respected membership in the curriculum of higher education has, not only its specialized vocabulary, but also a grammer of its own, a mode of thinking and of testing its fundamental concepts. The effective college teacher knows how knowledge in his field is validated. He is familiar with all of these scholarly devices. At one and the same time he is both specialized and broad: specialized enough to make him a mature critic—possibly, if he wishes it so, even a creative worker in his field—yet broad enough to enable him to see the relations of his specialty to the whole of contemporary life. For effective college teaching scholarship such as here described is indispensable.

► But effective college teaching involves more than subject-matter specialization. The successful college teacher is more than a researcher and more than a scholar. He himself must be somebody. Elements of character and personality may actually stand higher in the scale of values than sheer intellectual ability and scholarly attainment. Moreover, as the President's Commission points out, there are those professional "skills" which it is essential for the [educational] practitioner to possess."

► It is not enough for a college teacher to teach as he was taught. Unfortunately much of the instruction he received was inferior. Too frequently ancient teachers lectured from ancient and unrevised notes. Too often there was no life in the classroom—only boredom. As vitalizers of the learning process many of these teachers, as Cowley suggests, "resembled lead." We must do better than that.

This brings us to the important matter of objectives. Following classroom visits to a large number of colleges and universities, the late Paul Klapper indicated that his most indelible impression was the characteristic *aimlessness* of classroom instruction.[7] The hours were crammed from bell to bell with fact transmission—facts which frequently could and should have been gleaned by the student himself. The notes of the professor became the notes of the student without going through the mind of either. Again and again Klapper observed classes where the teacher apparently did not know why he was teaching what he was teaching.

A teacher ought never to go into a classroom without knowing what he wants to accomplish, both immediately (in the day's lesson) and in the long haul (the entire course). Hence, it is essential that the objectives be entirely clear.

The college teacher's philosophy of his specialty and related subjects and his own heirarchy of val-

4 In: Fred J. Kelly, *Toward Better College Teaching*. Washington: U. S. Government Printing Office, 1950, p. 18.
5 *Ibid.*, p. 22.
6 *Ibid.*, p. 22.

7 In: Theodore C. Blegen and Russell M. Cooper (ed.), *Preparation of College Teachers*. Washington: American Council on Education, 1950, p. 42.

ues will determine his objectives. His objectives, in turn, will influence his choice of subject matter.

It is not our purpose here, of course, to prescribe the content of any college course. As Nathaniel Cantor observes, "Only fools and fanatics, the one without knowledge and the other without humility, rush in with completed blueprints." This does not, however, keep us from saying a word about the concept of usefulness as a criterion in the choice of subject context.

▶ Stated broadly, the function of higher education is to help prepare people to live effectively in the democratic society of which they are a part. Increasingly, students are demanding relevance in their college work. And well that may be. In a recent volume, Oliver C. Carmichael, formerly president of the Carnegie Foundation for the Advancement of Teaching and now president of the University of Alabama, summarized the matter this way:

> The ivory tower conception is no longer applicable. Whether for the better or not, "knowledge for its own sake" is less popular than formerly. The demands for knowledge and skills which emergencies made upon higher education in two world wars resulted in a new attitude on the part of colleges and universities. They are asking more seriously than ever before what their function is in modern society. For many decades this question was never seriously asked by faculties. The fact that it is now continually discussed means that the test of relevance is being applied to the entire program.[8]

All of us, I believe, would attach high importance to the relevance of colleges and universities to our democratic society. Does it not stand to reason, therefore, that the work offered in institutions of higher learning should itself be relevant—relevant to the individual in his professional life, relevant to the individual as a citizen in a democracy, or (at its best) relevant to both at the same time?

▶ We turn now to the problems of method. How shall we teach what we teach? The effective teacher will undoubtedly begin where the students are. That should be axiomatic. That said, we are willing for the teacher to use whatever methods he employs most effectively. Actually there is no one best method of teaching, not even any method unique to a given field. Rather, the effective teacher selects pertinent materials and combines them with appropriate methods peculiarly suited to his talents and objectives.

Different people teach in different ways. The outstanding teacher of my undergraduate days was a notably poor lecturer. He avoided formal speaking whenever possible. He seldom spoke in public or even at campus-wide meetings—and then only with much pain. But he was an extremely fine teacher. He was a biologist-geologist but from him I learned more religion than I learned from my teachers in religion and more philosophy than I learned from my teachers in philosophy. His technique was his own modification of the Socratic method: rapid-fire questions dealing with facts and relationships interspersed with short penetrating comments which sharpened meaning and elicited integration. It was not a question-answer technique in the ordinary sense of the phrase. These bursts of questions might occupy a single student for ten or fifteen minutes and when he got through with one of these experiences, believe me, he knew he had been somewhere! I have never known another teacher to teach in quite this way. And I have never known a finer teacher. His influence for good upon his students was tremendous.

Among my graduate instructors I should rate at the top a man who excelled in neither the lecture nor the discussion method of teaching. His forte lay in demonstrations and field trips. In these activities I have never seen his equal. His initiative in devising demonstrations was uncanny, and his field trips were planned to the last detail. It was virtually impossible for a person to be in his class and not get the essential learnings he was trying to set forth.

As I look back over my own academic career I do not believe I ever had an outstanding lecturer as a teacher. True, the vast majority were committed to this teaching technique, but as I recall not a single one was outstanding at it. Too many of these people confused talking with teaching—and they are not the same. Neither is listening to talking the same as learning.

But I know there are some people who teach most effectively by the use of the lecture method. William Lyon Phelps, late professor of literature at Yale, was undoubtedly one of them. I heard Professor Phelps speak only once, but I am convinced from that one lecture that he could make every person in a large audience feel that he was speaking directly and individually to each of his listeners. Until he became ill a year or two ago I had a colleague like that at Florida State University.

But lecturers like these are exceptional. Although the great majority of college teachers attempt to use the lecture method, few use it effec-

[8] Oliver C. Carmichael, *The Changing Role of Higher Education*. New York: The Macmillan Company, 1949, p. 23.

tively with the net result that this teaching method is undoubtedly overworked far beyond reason.

In my own academic work I am convinced also that I never had a teacher who could use the discussion method effectively. Many of them tried it but too frequently class hours turned out to be question-recitation sessions between the teacher and the individual students. There was no honest-to-goodness discussion in any real sense of the word.

Following visits to several scores of institutions the late Paul Klapper had this to say about teaching by the discussion method:

> The discussion hours reveal, very frequently, an idle turning of many mills. Arithmetically, in three out of five discussion classes, the instructors open the hour with the identical question, "Are there any questions?" Invariably this is followed by a silence palpable and oppressive. After an embarrassing interval of about a minute the question is repeated, this time with either more appeal or with a betrayal of surprise. As a rule an aggressively inclined student asks a question which is at once turned over to a classmate with, "What do you think of it, Mr. Smith?" Mr. Smith, temporarily victimized, had never thought about it. In fact, inquiry discloses that the pronoun "it" has either an unidentifiable antecedent or many possible antecedents. In this climate of indefiniteness, the discussion is born. Small wonder that the class flits from topic to topic as if it were taking a free-association test. The fortuitous questions of the students, rather than the well-planned questions of the instructor, give direction to the entire period. Going off in all directions, the students arrive at no destination when the bell sounds. True, they may have had an interesting time feather-dusting a sizeable number of significant ideas. Such discussions may often be pleasurable episodes, but they lack vigor and discipline and beget the serious intellectual pitfall of irrelevance.[9]

Dr. Klapper did not intend the foregoing quotation to be humorous. He was reciting events he had observed in visiting classrooms in a large number of American colleges and universities. Contrast his resumé with a class discussion conducted by a colleague of mine at the Florida State University. He teaches Religion and Marriage and Family Problems. Near the Easter season I watched him lead a class discussion. His first question was this: "What difference would it make in your personal life if Jesus Christ had never lived?" Discussion was so lively that he asked only two other questions during the hour: "What difference would it make to you personally if Christ had not died in the way he died?" and "What difference would it make to you personally if there had been no resurrection?" What red-blooded Christian, regardless of his particular denomination, can remain quiet when questions like that are on the floor? Beleive me, there was some real soul-searching into religious beliefs; and the discussion was going strong well after the bell had officially ended the hour.

I have used these four examples—others could be added—to illustrate four different and, in my judgment, equally effective methods of teaching. Who can say that one is better than the other? What I am trying to say is this: the successful teacher will experiment with different methods of communication until he arrives at the techniques he uses most advantageously. He will then polish these techniques into effective teaching instruments.

Whatever the methods used it must be remembered that really effective teaching is concerned more with the meaningful interpretation of knowledge than with the mere impartation of facts. Facts are important, but meaning is more important. The effective teacher does not supply all the answers even if he knows them. He knows that once the learning stage is properly set and the student adequately motivated the student will acquire for himself increasing insight and understanding through the learning process. Says Paul Anderson of the Pennsylvania College for Women, "This is the way we learn and the good teacher is one who helps others learn rather than one who learns for them. The teacher's mastery consists less in the encyclopedic character of his knowledge, more in his ability to manipulate and control it for the purposes of clarification . . . . Learning is a dynamic movement from indifference, ignorance, and misconception to appreciation, knowledge and understanding. The good teacher helps to make the transition smooth and inevitable."[10] In the final analysis our value as TEACHERS depends not so much on how much we know as it does on how effectively we assist others to learn.

► The effective college teacher finds ways and means of individualizing the work of his students. He knows that teaching is at its best when all students—slow learners and fast learners alike—develop to their maximal capacity. Individualizing instruction may take any one or any combination of several forms: special reading assignments, projects, student demonstrations, conferences, or special laboratory work. Always the activity is arranged in terms of the interests and abilities of students as individuals. Individualizing instruction

9 Paul Klapper, *op. cit.*, p. 43.

10 Paul R. Anderson. "The Preparation of the Teacher in General Education." *Journal of General Education*, Vol. III, No. II (January, 1949), p. 101.

takes some doing, but it can be done. The effective teacher sees that it is accomplished.

► Today's college teacher must be concerned with the outcomes of his instruction. He knows that educational evaluation is always difficult and that the real problems of evaluation are much more profound than the much-debated question of the relative merits of objective versus essay examinations. He knows that evaluation must be in terms of the objectives set for the course and he knows that paper-and-pencil tests over factual information are not enough. He seeks other means of evaluation. He assists students in developing skill in self-appraisal, and he encourages them to develop an experimental outlook on their own problems of evaluation.

► Corollary to the problem of evaluation is the matter of equitable grading. Whether he likes it or not, this is a responsibility the college teacher must assume. If he fails to carry the conviction of his class that his system of grading is fair and reasonable, he is in trouble. Students have a right to fair and impartial treatment in this matter of grading, and there can be no good teaching without it.

► Finally, I would contend that the good college teacher is enthusiastic about his work. As we indicated earlier we tend to teach as we were taught. This is not good enough. Professors have been defined as people who talk in other people's sleep. Too many college teachers are just that!

The Most Thrilling of Professions

College teaching is no business for half-hearted people. Enthusiastic teachers are needed—teachers who have a contagion about them, a contagion which spills over and infects students. These teachers elicit something. We need men like Yale's great teacher of literature, William Lyon (Billy) Phelps, who said, ". . . teaching is to me the most thrilling of professions," and the old Danish schoolmaster, Christian Kold, who said "If you will come into my classroom I will wind you up so you will never run down." Two decades ago Glenn Frank wrote, "There can be no routine teaching. There can only be routine teachers."

The enthusiastic teacher sees over his textbooks. He soon comes to realize that he himself is his own best teaching device. Ordway Tead points out that, "There is no escape from concern for the total personality which the teacher brings to his task. He is always and literally teaching himself."[11] The old saying, slightly revised, still stands, "What we are and do speaks so strongly our students frequently cannot hear what we say."

Whether the quotation is original with him or not, T. V. Smith, the philosopher, credits a New Orleans automobile mechanic with this observation: "He who works with his hands is a laborer; he who works with his hands and his mind is a craftsman; he who works with his hands, his mind, and his heart is an artist."[12] Combine this kind of artistry with the enthusiasm here discussed and a new day in college teaching would be at hand.

These, then, are the major characteristics of a good college teacher: he understands and likes young people, especially college students; he is a scholar who teaches; in his teaching he uses his own personality effectively; his objectives are clearly formulated; he begins where the students actually are; his work is characterized by relevance; he employs methods which he uses effectively; he adapts his work to the individuals in the class; he is concerned with evaluation which goes beyond routine examinations; he grades fairly and impartially; and finally he teaches with enthusiasm. Any institutional program designed to improve college instruction must be aimed at advancing in individual teachers the competencies outlined above.

11 Ordway Tead, *College Teaching and College Learning.* New Haven: Yale University Press, 1949, p. 6.

12 In Francis H. Horn (ed.), *Current Issues in Higher Education, 1952.* Washington: National Education Association, 1952, p. 60.

Young Teacher

"If a department head, on the arrival of a new instructor, would ask him to select one of the best teachers in the department as his adviser, with the understanding that they would each visit the other's classes, and that they would discuss teaching problems and methods freely, a great deal could be done to correct the faults and improve the skill of a young teacher. At the same time the department head would have at hand an experienced professor who would know at first hand what quality of teaching the instructor was doing and what promise he had."—Raymond M. Hughes, A Manual for Trustees of Colleges and Universities. Iowa State College Press. 1945. Page 84.

UNDERLEARNING AND OVERLEARNING

Mary practicing endlessly at the piano and Bill tirelessly trying for baskets are familiar examples of the price of success. A professor of Plymouth Teachers College (New Hampshire) suggests that some of the gaps in students' knowledge may be the result of trying to avoid duplication.

By B. Everard Blanchard

Every college instructor has undoubtedly attended a faculty meeting devoted in part to the discussion, How best can we offer our courses and avoid overlapping of subject matter? There are some serious students of education who resent the idea of duplication in subject matter. These individuals claim that subject matter should be a separate entity from one class to another, yet so arranged that the goals and the objectives of various courses are synonymous with those sponsored by the institution.

The lowly rat, for example, got to the food-box, or followed the same maze, on successive trials, but he accomplished neither by the identical motor action. A college student taking a course containing references to and discussions of a previous course might follow avenues at least as varied as those of a rat.

The manner in which many institutions of higher education present their course offerings today is much the same as may be found in the typical secondary school, namely, piecemeal and fragmentary. A minority of schools who dare to be unorthodox — for example, the experimentalists — arrange courses so that they fuse with others, or several courses are integrated into what might be called a "broad field" study. Still other institutions offer general survey courses in an attempt to cut across subject matter boundaries.

This pseudo revolt against repetition or duplication in courses of study should not lead us to think that repetition is unnecessary in learning. What it should influence us to do is to discover what forms of repetition are fruitful, thus guiding the learner to make succeeding efforts as efficient as possible. Speaking of retention and forgetting, Stroud states: "We cannot avoid teaching courses having similar content; and it does not seem to make much difference whether one follows the other immediately or after an interval of several hours."[1]

The anti-repetitionists frequently point out that the higher we ascend in the educational system, the greater the intelligence quotient ordinarily found. Hence, if we accept this supposition, courses of study should by all means eliminate overlapping and provide enrichment which will seriously challenge these potential intelligence quotients. This is an excellent theory and might be accepted most heartily, if the quality of schoolwork and capacity to learn were parallel. In examining the table below, we find that while the intelligence quotient may rise with each succeeding level of our educational system, "these coefficients indicate that primary-school children make the greatest use of their ability to learn, and that college students make the least."[2] The modern elementary school stresses meaningful and purposeful drill and repetition to a certain degree and this procedure proceeds despite the fact that elementary school pupils make the greatest use of their ability to learn.

Quality of Schoolwork and Capacity to Learn*

School level	Correlation coefficient
Primary School	.72
Intermediate Grades	.52
High School	.48
College	.43

* These are approximate figures.

If intelligent drill and repetition appear to be feasible to elementary school educators, just how do the anti-repetitionists on the college level defend themselves?

There are some college instructors of mathematics who complain about students' deficiencies, specifically in the elementary processes of arithmetic and algebra. Perhaps, somewhere along the line, the fundamentals were slighted, or possibly poor teaching was responsible. It is also probable that variety of drill, repetition, and clear understanding of computations did not receive the proper stress.

Repetition or duplication of subject matter is defined by the writer as "overlearning." Many of the studies of retention in school subjects have shown great losses, even over the summer months.

1 Stroud, James B., *Psychology in Education* (Longmans, Green and Company, Inc., 1946), p. 553.

2 Simpson, Robert G., *Fundamentals of Educational Psychology* (J. B. Lippincott Company, 1949), p. 48.

To rectify this problem, elementary school teachers usually devote the first weeks of each year to reviews of the previous work.

After overlearning of various degrees there will be in all cases a rapid initial loss, after which forgetting varies according as overlearning has been slight, considerable, or great.

If it could be assumed that college instructors emphasize overlearning in all subject matter areas, we might abandon any thought of overlapping courses of study, but as common sense would seem to dictate, such a conjecture would seem to be like whistling in the dark. Let it not be supposed that the typical college youth is engaged in overlearning; rather, we might better say, underlearning seems to be the rule.

The composers, Schubert, Schumann, Chopin, and Beethoven labored endless hours practicing the same compositions over and over again. The scientists, Edison, Bell, Marconi, and Fulton reduced their repetitive experimentations to practical ideas which today are regarded as universal concepts. "Red" Grange of Illinois, Jesse Owe of Ohio State, Jim Thorpe of Carlisle School, an John Weismuller of Illinois owe their greatne in some degree to the mechanical techniques constant drill and repetition.

The Bible has been read for many generation by notable scholars time and again and each re reading has added new ideas, appreciations, an understandings. Fiction books are read repeatedl by members of the younger generation and eac successive reading has brought forth an enlivene interest and recognition of esteem.

Errors cannot be detected minus review. Along this same line, Stroud states: "We cannot empha size too strongly that the strength of habit doe not merely rest upon the number of times it is repeated. Erroneous repetitions made under the belief that they are correct—erroneous repetitions that are confirmed—do, of course, lead to erroneous learning; but when the error is perceived there need be no erroneous learning."[3]

[3] *Ibid.*, p. 376.

THESE ARTICLES WERE STIMULATING

Curtis, Francis J. **Science as Culture.** Chemistry and Industry, August 1, 1953. Pages 806-808.
Presidential address, Society of Chemistry and Industry, Nottingham, England, July 22, 1953. "Modern liberal education is a failure. It has ceased to be liberal and tends to be fossil."

Engineers' Council for Professional Development. **The Most Desirable Personal Characteristics.** An Exploration of Opinion and a Report from the Sub Committee on Student Development." September 1948.
"The overall difference between the ideas of student engineers and their elders is perhaps one of degree rather than of kind."

Hanway, Jean. **Maintaining the Scholarly Productivity of the College Faculty.** American Association of University Professors Bulletin Vol. 36, No. 3, Autumn 1953. Pages 483-488.
"To improve the present situation, we ought to recognize that the modern university needs the services of many types of people on its faculty."

Hechinger, Fred M. **The Fate of Pedagoguese.** Saturday Review, December 12, 1953. Pages 18-20.
Comments on "Quackery in the Public Schools" by Albert Lynd, "Educational Wastelands" by Arthur Bestor, and "Let's Talk Sense About Our Schools" by Paul Woodring, by a man (not "a teachers' college man") who believes "there are no final solutions in sight and compromise will show the way to better, more reasonable ways of teaching."

Horton, Mrs. Douglas. **Confessions of an Ex-President.** Association of American Colleges Bulletin. Vol. xl, No. 1, March 1954. Pages 18-31.
Frank talk by former president of Wellesley: "I did not adequately appreciate American higher education while I was an official part of it." A presentation—with humor, discernment, and earnestness—of the American college in its world setting.

Kistler, S. S. **Imagination: A National Resource.** Western Humanities Review, Vol. VII, No. 2, Spring 1953. Pages 139-148.
"So far have we come that our culture can now be said to rest upon the conscious channeling of creative imagination into invention. We are in the grip of a chain reaction—where each new achievement catalyzes further accomplishment."

Klapper, Paul. **The Sociology of College Teachers.** Educational Forum, Vo. xvi, No. 2, January 1952. Pages 139-150.
"Those who have the native talent and undergo extended and demanding preparation are entitled to know what college teaching offers them in return.

Lippmann, Walter. **The Shortage in Education.** Atlantic, Vol. 193, No. 5, May 1954. Pages 35-38.
"We know how to find the dollars to defend ourselves, even if we must do without something else. In education we have not yet acquired that kind of will. We need to acquire it, and we have no time to lose."

Munford, James Kenneth. **The Functions of Faculty Committees.** College and University, Vol. xxvii, No. 1, October 1951. Pages 79-84.
Faculty committees perform five main functions: policy-forming or legislative, executive or administrative, judicial, advisory or consultative, research or investigational. Good committee members with willingness to work and a sense of team work enable committees to meet adequately and democratically their essential place on the modern campus.

Owen, John E. **Are Instructors Inducements or Indictments?** School and Society, Vol. 74, No. 1912, August 11, 1951. Pages 84-85.
A few yardsticks are suggested by which the representatives of conflicting educational ideologies might measure themselves. "Are they an inducement for others to follow the educational philosophy they cherish, or are they its own worst indictment?"